pronounced. Indeed, there may be more than one MLR and the MLRs may be networked together (across national boundaries for example) to track subscribers across the jurisdictional boundaries of each MLR. The MLRs may update each other's lists by monitoring subscriber location update activity across jurisdictional boundaries.

FIG. **4** shows a diagram of a monitoring location register and switches in accordance with a preferred embodiment of the present invention.

The diagram of FIG. **4** includes MLR **10** and switches **410**. MLR **10** includes master intercept list **305**, and switches **410** include intercept lists **415**. The hybrid embodiment of FIG. **4** is advantageous because many existing systems operate with local intercept lists maintained within switches. When calls are made, the switches query the local intercept lists to ascertain the necessity of intercepting the call. In this context, MLR **10** maintains the master intercept list, which in turn is used to maintain a number of local intercept lists. Updates of local lists can be a record at a time or can be an entire list update at once.

The advantages of MLR **10** are realized by MLR **10** providing a single point of administration for a number of intercept lists, possibly from different, disparate, communications systems. MLR **10** works with existing systems, yet will alleviate the burden of manually updating the local lists.

FIG. **5** shows a diagram of a monitoring location register in accordance with a preferred embodiment of the present invention.

MLR **10** includes input/output (I/O) interface **510**, control **520**, user interface **530**, and data storage **540**. Also shown in FIG. **5** is terminal **550** connected to user interface **530** of MLR **10**.

I/O interface **510** communicates with switches. When switches make queries to MLR **10**, or when MLR **10** provides monitoring information to switches, the information passes through I/O interface **510**.

Data storage **540** supports the storing of master intercept list. Data storage **540** can be non-volatile storage such as a hard disk, or can be volatile storage such as high speed random access memory (RAM), but is preferably a combination of the two. The use of high speed RAM is advantageous because if the master intercept list is maintained in RAM, queries made by switches can be responded to very quickly.

User interface **530** is an interface that provides the ability to administer MLR **10**. This interface provides a single point of control for the maintenance of a master intercept list.

Control **520** provides control functions necessary for the operation of MLR **10**. Functions of control **520** include controlling user interface **530** and I/O interface **510**, and controlling the use of data storage **540**. Control **520** is preferably a microprocessor or other computing device capable of controlling the interfaces and searching the master intercept list included in data storage **540**.

Terminal **550** is shown as a device that allows a user to interact with MLR **10**. Terminal **550** is preferably separate from MLR **10** as shown for reasons of modularity, but in an alternate embodiment, terminal **550** is integrated as a part of MLR **10**.

FIG. **6** shows a flow chart for a method of monitoring a user in a communications system in accordance with a preferred embodiment of the present invention.

Method **600** begins with step **603** when a caller identifies himself to a system. In wireless systems, callers (or users) identify themselves to the system periodically even if they are not making a call. This allows systems to keep track of users as they roam from system to system. In a wireline system, a caller usually identifies himself to a system just prior to making a call.

In the case of wireless systems, information provided to the system by the user usually includes subscriber identification information in the form of a Mobile Identification Number (MIN), International Mobile Subscriber Identity (IMSI), Mobile Subscriber ISDN (MSISDN), or a serial number associated with the equipment being used. In addition, location identification information may also be provided.

After the caller identifies himself to the system in step **603**, the system determines if this is the first time the caller has identified himself in step **605**. If this is not the first time, processing proceeds to step **610**. On the other hand, if this is the first time the caller has identified himself to the system, processing proceeds to step **710** of FIG. **7**.

FIG. **7** shows a flow chart for a method of maintaining an intercept list in accordance with a preferred embodiment of the present invention.

Step **710** of FIG. **7** is entered when the caller has identified himself to the system for the first time. In step **710** the system performs a location update. "Location update" is a GSM term that refers to the procedure by which a subscriber registers in a new system and at the same time updates its home location register (home system subscriber database) as well as the previous system in which was registered.

In step **720** the subscriber information sent to the system in step **603** (FIG. **6**) is used to query the MLR. If the MLR determines that the location of the subscriber is being tracked by an agency, then in step **730** it returns information requesting the generation of an intercept record. An intercept record is a record of the event, where the record includes fields for subscriber identity, location, and event. In this case, the event is simply the caller identifying himself to the system.

In an alternate embodiment, the location update as shown in step **710** is not an event distinguishable from the MLR query of step **720**. In this embodiment, the MLR makes the determination that a location update is necessary, and performs it without further intervention by the querying system.

In addition to instructions for generating an intercept record, if the caller is to be intercepted, the MLR returns an entry from the master intercept list. If in step **740** the system determines that it maintains a local intercept list, and in step **750** the system determines that the local intercept list needs to be updated, then the system updates the local intercept list with the list entry received from the MLR in step **760**. Otherwise, processing proceeds to step **610** (FIG. **6**).

Referring now back to FIG. **6**, processing continues with decision block **610** where the system determines whether the caller is placing a call. If not, then processing ends. If the caller is making a call, then processing continues with step **615** when the caller enters call request information. The caller directly enters the number of the party he is trying to reach. This results in a message from the subscriber to the system that includes subscriber identity, type of call, and called party.

In step **620** the system determines whether a local intercept list is maintained on the system. If so, then it is searched in step **625** to see if the call should be intercepted. If a local intercept list is not maintained on the system, then a query is made to the MLR to see if the call should be intercepted. The MLR is queried in step **630**, and returns an entry from the master intercept list.